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SEQUENCE LISTING

09/857636

09857636-110001

<110> Dong, Zheng Xin

<120> Analogues of GLP-1

<130> 00537-186002

<140> US 09/857,636

<141> 2001-06-07

<150> PCT/EP99/09660

<151> 1999-12-07

<150> US 60/111,255

<151> 1998-12-07

<150> US 09/206,601

<151> 1998-12-07

<160> 415

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Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg

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1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg

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Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
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Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
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Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
			20				25					30			

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<223> Xaa =

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N-epsilon-(2-(4-tetradecyl-1-piperazine)-acetyl)lysine

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Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
			20					25					30		

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Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
			20					25					30		

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 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

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 <223> this sequence has an amidated c-terminus

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<223> this sequence has an amidated c-terminus

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Gln	Xaa	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Lys	Xaa	Arg		
			20					25					30		

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<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

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<223> this sequence has an amidated c-terminus

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Glu	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Lys	Xaa	Arg		
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 1 5 10 15
 Glu Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
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 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
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 1 5 10 15
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 1 5 10 15
 Gln Ala Lys Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 20 25 30

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1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa Xaa Xaa
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 1 5 10 15
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 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa
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 20 25 30

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 1 5 10 15
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 20 25 30
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Glu	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg		
		20					25					30			

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1				5					10				15		
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg		
		20					25					30			

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1				5					10				15		
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg		

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20 25 30

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<223> Xaa = D-Arg

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20 25 30

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<221> VARIANT
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 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg Xaa
 20 25 30

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Arg

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<220>
 <223> Mutagen

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

09857636.110201

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 44
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Lys Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Lys Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 45
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 45
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Lys Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 46
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

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<222>

<223> this sequence has an amidated c-terminus

<400> 46

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10				15		
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg	Gly	Arg
			20					25					30		

<210> 47

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 47

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10				15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
			20					25					30		

<210> 48

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 29

<223> Xaa = D-Arg

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 48

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

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1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 49
 <211> 31
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 49
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg Arg
 20 25 30

<210> 50
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 50
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Phe Leu Val Lys Xaa Arg
 20 25 30

<210> 51

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<211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 51
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Phe Leu Val Lys Xaa Arg
 20 25 30

<210> 52
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 25
 <223> Xaa = Nal (naphthylalanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 52
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Xaa Leu Val Lys Xaa Arg
 20 25 30

<210> 53
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
 <222> 2, 29

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<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 22, 25

<223> Xaa = Nal (naphthylalanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 53

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Lys	Glu	Xaa	Ile	Ala	Xaa	Leu	Val	Lys	Xaa	Arg		
			20					25					30		

<210> 54

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 25

<223> Xaa = Nal (naphthylalanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 54

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Xaa	Leu	Val	Arg	Xaa	Arg		
			20					25					30		

<210> 55

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

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<400> 57
His Xaa Glu Gly Thr Xaa Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Lys Glu Phe Ile Ala Xaa Leu Val Lys Xaa Arg

20

25

30

<210> 58
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-decanoyl-lysine

<400> 58
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Xaa
 20 25 30

<210> 59
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa = N-epsilon-decanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 59
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 60
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

09857646-110201

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-dodecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 60
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 20 25 30

<210> 61
 <211> 31
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222> 31
 <223> Xaa = O-decanoyl-serine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 61
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg Xaa
 20 25 30

<210> 62
 <211> 33
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

09857636-1102001

<221> VARIANT
 <222> 2, 21
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29, 31
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222> 33
 <223> Xaa = N-epsilon-octanoyl-lysine

<400> 62
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Xaa Phe Ile Ala Trp Leu Val Lys Xaa Arg Xaa Arg
 20 25 30
 Xaa

<210> 63
 <211> 31
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222> 31
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 63
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa
 20 25 30

<210> 64
 <211> 31
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

0057636-11001
 102017-9292560

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<221> VARIANT
<222> 2
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 29
<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
<222> 31
<223> Xaa = N-epsilon-decanoyl-lysine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 64
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1             5             10            15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa
      20             25             30

<210> 65
<211> 31
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 29
<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
<222> 31
<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 65
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1             5             10            15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa
      20             25             30

<210> 66
<211> 30
<212> PRT
<213> Artificial Sequence

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<220>
<223> Mutagen

<221> VARIANT
<222> 2
<223> Xaa = A5c (1-amino-1-cyclopentanecarboxylic acid)

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 66
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1             5             10             15
Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg
      20             25             30

<210> 67
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 1
<223> Xaa = Tma-His (N,N-tetramethylamidino-histidine)

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 67
Xaa Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1             5             10             15
Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg
      20             25             30

<210> 68
<211> 31
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 29
<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

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<222> 31
 <223> Xaa = Aec (4-(2-aminoethyl)-1-carboxymethyl-piperazine)

 <221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

 <400> 68
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg Xaa
 20 25 30

 <210> 69
 <211> 32
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Mutagen

 <221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

 <221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

 <221> VARIANT
 <222> 32
 <223> Xaa = Aec (4-(2-aminoethyl)-1-carboxymethyl-piperazine)

 <221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

 <400> 69
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg Gly Xaa
 20 25 30

 <210> 70
 <211> 32
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Mutagen

 <221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

 <221> VARIANT
 <222> 29

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<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222> 31, 32

<223> Xaa = Aec (4-(2-aminoethyl)-1-carboxymethyl-piperazine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 70

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg	Xaa	Xaa
			20					25					30		

<210> 71

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 71

His	Ala	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg		
			20					25					30		

<210> 72

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 72

His	Ala	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	

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Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 73
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 1
 <223> Xaa = N-alpha-Me-His (N-methyl histidine)

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 73
 Xaa Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 74
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 1
 <223> Xaa = N-alpha-Me-His (N-methyl histidine)

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 74
 Xaa Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg

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20

25

30

<210> 75
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 1
 <223> Xaa = N-alpha-Me-His (N-methyl histidine)

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 75
 Xaa Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 76
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 1
 <223> Xaa = N-alpha-Me-His (N-alfa-methyl histidine)

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 76
 Xaa Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

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<220>
<223> Mutagen

<221> VARIANT
<222> 2
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 29
<223> Xaa = D-Ala

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 79
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1             5             10             15
Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
      20             25             30

<210> 80
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 26
<223> Xaa = A5c (1-amino-1-cyclopentanecarboxylic acid)

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 80
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1             5             10             15
Gln Ala Ala Lys Glu Phe Ile Ala Trp Xaa Val Lys Xaa Arg
      20             25             30

<210> 81
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT

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<222> 2, 24, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 81
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Xaa Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 82
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 19, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 82
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Xaa Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 83
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 10, 14
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 83
 His Xaa Glu Gly Thr Phe Thr Ser Asp Xaa Ser Ser Tyr Xaa Glu Gly

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1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 84
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 10, 23, 26
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 84
 His Xaa Glu Gly Thr Phe Thr Ser Asp Xaa Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Xaa Ala Trp Xaa Val Lys Xaa Arg
 20 25 30

<210> 85
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 14, 26
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 85
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Xaa Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Xaa Val Lys Xaa Arg
 20 25 30

<210> 86

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<211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 14
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 86
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Xaa Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 87
 <211> 30
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 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 87
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Lys Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 88
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<220>
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<221> VARIANT
 <222> 2, 18, 29

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<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 14

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 88

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Xaa	Glu	Gly
1				5				10					15		
Gln	Xaa	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg		
			20					25					30		

<210> 89

<211> 30

<212> PRT

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<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 23, 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 89

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Lys	Glu	Phe	Xaa	Ala	Trp	Xaa	Val	Lys	Xaa	Arg		
			20					25					30		

<210> 90

<211> 30

<212> PRT

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<221> VARIANT

<222> 2, 18, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 23, 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

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<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 90
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 1             5             10             15
Gln Xaa Ala Lys Glu Phe Xaa Ala Trp Xaa Val Lys Xaa Arg
 20             25             30

<210> 91
<211> 30
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<221> VARIANT
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<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 6
<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 91
His Xaa Glu Gly Thr Xaa Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1             5             10             15
Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20             25             30

<210> 92
<211> 30
<212> PRT
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<221> VARIANT
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<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 14
<223> Xaa = Cha (alpha-amino acid cyclohexylalanine)

<221> VARIANT
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<223> this sequence has an amidated c-terminus

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<400> 92
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Xaa Glu Gly
 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 93
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 <212> PRT
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<221> VARIANT
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<221> VARIANT
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 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 93
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 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Xaa Lys Xaa Arg
 20 25 30

<210> 94
 <211> 30
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 <213> Artificial Sequence

<220>
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<221> VARIANT
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 10,14
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 94

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His Xaa Glu Gly Thr Phe Thr Ser Asp Xaa Ser Ser Tyr Xaa Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 95
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 16
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
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 <223> this sequence has an amidated c-terminus

<400> 95
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Xaa
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 96
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
 <222> 2, 16, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 96
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Xaa
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 97
 <211> 30
 <212> PRT
 <213> Artificial Sequence

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<220>
<223> Mutagen

<221> VARIANT
<222> 2, 18, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 26
<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 97
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1             5             10             15
Gln Xaa Ala Lys Glu Phe Glu Ala Trp Xaa Val Lys Xaa Arg
      20             25             30

<210> 98
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
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<221> VARIANT
<222> 2, 18, 19, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 26
<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 98
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1             5             10             15
Glu Xaa Xaa Lys Glu Phe Glu Ala Trp Xaa Val Lys Xaa Arg
      20             25             30

<210> 99
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT

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<222> 2, 18, 19, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

 <221> VARIANT
 <222> 10,14, 26
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

 <221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

 <400> 99
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 1 5 10 15
 Glu Xaa Xaa Lys Glu Phe Ile Ala Trp Xaa Val Lys Xaa Arg
 20 25 30

 <210> 100
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 <220>
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 <221> VARIANT
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

 <221> VARIANT
 <222> 26
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

 <221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

 <221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus.

 <400> 100
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 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Xaa Val Lys Xaa Arg
 20 25 30

 <210> 101
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 <212> PRT
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 <220>
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 <221> VARIANT
 <222> 2

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<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 26
<223> Xaa = A5c (1-amino-1-cyclopentanecarboxylic acid)

<221> VARIANT
<222> 29
<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 101
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1             5             10             15
Gln Ala Ala Lys Glu Phe Ile Ala Trp Xaa Val Lys Xaa Arg
      20             25             30

<210> 102
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
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<221> VARIANT
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<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 29
<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 102
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1             5             10             15
Gln Xaa Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
      20             25             30

<210> 103
<211> 30
<212> PRT
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<220>
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<221> VARIANT
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<223> Xaa = Aib (alpha-aminoisobutyric acid)

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<221> VARIANT
<222> 29
<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 103
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1             5             10             15
Gln Ala Ala Lys Glu Phe Ile Xaa Trp Leu Val Lys Xaa Arg
      20             25             30

<210> 104
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
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<221> VARIANT
<222> 2, 19
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 29
<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 104
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1             5             10             15
Gln Ala Xaa Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
      20             25             30

<210> 105
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
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<221> VARIANT
<222> 2
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 10, 23, 26
<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

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<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 105
 His Xaa Glu Gly Thr Phe Thr Ser Asp Xaa Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Xaa Ala Trp Xaa Val Lys Xaa Arg
 20 25 30

<210> 106
 <211> 30
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<220>
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<221> VARIANT
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<221> VARIANT
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 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 106
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 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Xaa Val Lys Xaa Arg
 20 25 30

<210> 107
 <211> 30
 <212> PRT
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<220>
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<221> VARIANT
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<221> VARIANT

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<222> 14,
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
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<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 107
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Xaa Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 108
 <211> 30
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<221> VARIANT
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<221> VARIANT
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<400> 108
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Lys Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 109
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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 <222> 2, 18
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<221> VARIANT
 <222> 14

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<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 109

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Xaa	Glu	Gly
1				5					10					15	
Gln	Xaa	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg		
			20					25					30		

<210> 110

<211> 30

<212> PRT

<213> Artificial Sequence

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<221> VARIANT

<222> 2

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<221> VARIANT

<222> 23, 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 110

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Lys	Glu	Phe	Xaa	Ala	Trp	Xaa	Val	Lys	Xaa	Arg		
			20					25					30		

<210> 111

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 18

<223> Xaa = Aib (alpha-aminoisobutyric acid)

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<221> VARIANT
 <222> 23, 26
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 111
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Xaa Ala Lys Glu Phe Xaa Ala Trp Xaa Val Lys Xaa Arg
 20 25 30

<210> 112
 <211> 30
 <212> PRT
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<220>
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
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 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 112
 His Xaa Glu Gly Thr Xaa Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 113
 <211> 30
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 <213> Artificial Sequence

<220>
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<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 14
 <223> Xaa = Cha (alpha-amino acid- cyclohexylalanine)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 113
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Xaa Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 114
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 27
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 114
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Xaa Lys Xaa Arg
 20 25 30

<210> 115
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 <212> PRT
 <213> Artificial Sequence

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<220>
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 <221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

 <221> VARIANT
 <222> 16, 29
 <223> Xaa = beta-Ala (beta-alanine)

 <221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

 <400> 115
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Xaa
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

 <210> 116
 <211> 30
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 <213> Artificial Sequence

 <220>
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 <221> VARIANT
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 <221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

 <221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

 <400> 116
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Xaa
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

 <210> 117
 <211> 30
 <212> PRT
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 <220>
 <223> Mutagen

 <221> VARIANT
 <222> 2

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<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
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<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
<222> 29
<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 117
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1             5             10             15
Glu Ala Ala Lys Glu Phe Ile Ala Trp Xaa Val Lys Xaa Arg
      20             25             30

<210> 118
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
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<221> VARIANT
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<221> VARIANT
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<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
<222> 29
<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 118
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1             5             10             15
Glu Xaa Ala Lys Glu Phe Ile Ala Trp Xaa Val Lys Xaa Arg
      20             25             30

<210> 119
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<212> PRT
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<220>
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<221> VARIANT
 <222> 2, 18
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 26
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
 <222> 28
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 119
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Glu Xaa Ala Lys Glu Phe Ile Ala Trp Xaa Val Xaa Xaa Arg
 20 25 30

<210> 120
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
 <222> 2, 18, 19
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<221> VARIANT
 <222> 26
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 120
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Glu Xaa Xaa Lys Glu Phe Ile Ala Trp Xaa Val Lys Xaa Arg
 20 25 30

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<210> 121
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
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<221> VARIANT
 <222> 10,14, 26
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 121
 His Xaa Glu Gly Thr Phe Thr Ser Asp Xaa Ser Ser Tyr Xaa Glu Gly
 1 5 10 15
 Glu Xaa Xaa Lys Glu Phe Ile Ala Trp Xaa Val Lys Xaa Arg
 20 25 30

<210> 122
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 30
 <223> Xaa = D-Arg

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 122
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Xaa
 20 25 30

<210> 123

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<211> 30
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 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 30
 <223> Xaa = D-Lys

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 123
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Xaa
 20 25 30

<210> 124
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222> 30
 <223> Xaa = D-Arg

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 124
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Xaa
 20 25 30

<210> 125
 <211> 30

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<212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222> 30
 <223> Xaa = D-Lys

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 125
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Xaa
 20 25 30

<210> 126
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 126
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 127
 <211> 30
 <212> PRT

0057636-10201

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 127

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10				15		
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
			20					25					30		

<210> 128

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 128

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10				15		
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
			20					25					30		

<210> 129

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

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<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has a hydroxylated c-terminus

<400> 129
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 20 25 30

<210> 130
 <211> 31
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has a hydroxylated c-terminus

<400> 130
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa Gly
 20 25 30

<210> 131
 <211> 31
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29, 31
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

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<222> 30
 <223> Xaa = N-epsilon-tetradecanoyl-lysine
 <221> VARIANT
 <222>
 <223> this sequence has a hydroxylated c-terminus

<400> 131
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa Xaa
 20 25 30

<210> 132
 <211> 31
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
 <222> 31
 <223> Xaa = D-Ala

<221> VARIANT
 <222>
 <223> this sequence has a hydroxylated c-terminus

<400> 132
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa Xaa
 20 25 30

<210> 133
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
 <222> 2,29,31
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 32

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<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has a hydroxylated c-terminus

<400> 133

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Xaa	Xaa
			20					25					30		

<210> 134

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 31

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222> 32

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has a hydroxylated c-terminus

<400> 134

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Xaa	Xaa
			20					25					30		

<210> 135

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2,29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa = N-epsilon-tetradecanoyl-lysine

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<221> VARIANT
<222>
<223> this sequence has a hydroxylated c-terminus

<400> 135
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1             5             10             15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Gly Xaa
      20             25             30

<210> 136
<211> 31
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 30
<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
<222> 31
<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
<222>
<223> this sequence has a hydroxylated c-terminus

<400> 136
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1             5             10             15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Gly Xaa Xaa
      20             25             30

<210> 137
<211> 31
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 31
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 30
<223> Xaa = N-epsilon-tetradecanoyl-lysine

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<221> VARIANT
 <222>
 <223> this sequence has a hydroxylated c-terminus

 <400> 137
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Gly Xaa Xaa
 20 25 30

 <210> 138
 <211> 31
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Mutagen

 <221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

 <221> VARIANT
 <222> 31
 <223> Xaa = Ado (12-aminododecanoic acid)

 <221> VARIANT
 <222>
 <223> this sequence has a hydroxylated c-terminus

 <400> 138
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa
 20 25 30

 <210> 139
 <211> 31
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Mutagen

 <221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

 <221> VARIANT
 <222> 31
 <223> Xaa = Ado (12-aminododecanoic acid)

 <221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

 <400> 139

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His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1           5           10           15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa
      20           25           30

```

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<210> 140
<211> 31
<212> PRT
<213> Artificial Sequence

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<220>
<223> Mutagen

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<221> VARIANT
<222> 2
<223> Xaa = Aib (alpha-aminoisobutyric acid)

```

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<221> VARIANT
<222> 30
<223> Xaa = N-epsilon-tetradecanoyl-lysine

```

```

<221> VARIANT
<222> 31
<223> Xaa = D- Ala

```

```

<221> VARIANT
<222>
<223> this sequence has a hydroxylated c-terminus

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```

<400> 140
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1           5           10           15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Gly Xaa Xaa
      20           25           30

```

```

<210> 141
<211> 32
<212> PRT
<213> Artificial Sequence

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<220>
<223> Mutagen

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<221> VARIANT
<222> 2, 31
<223> Xaa = Aib (alpha-aminoisobutyric acid)

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<221> VARIANT
<222> 32
<223> Xaa = N-epsilon-tetradecanoyl-lysine

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<221> VARIANT
<222>
<223> this sequence has a hydroxylated c-terminus

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<400> 141
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly

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<400> 143
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15

Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 144

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 144

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 145

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 145

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 146

<211> 30

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<212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 146
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 147
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 147
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

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<210> 148
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 148
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 149
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 149
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

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<210> 150
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 150
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 5 10 15
 Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 151
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 151
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 5 10 15
 Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 152
 <211> 30
 <212> PRT
 <213> Artificial Sequence

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<220>
 <223> Mutagen
 <221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa = N-epsilon-decanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 152
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 153
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen
 <221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 153
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Lys Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 154
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29

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<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 154

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10				15		
Gln	Ala	Lys	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
		20						25				30			

<210> 155

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 155

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10				15		
Gln	Ala	Lys	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
		20						25				30			

<210> 156

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa = N-epsilon-octanoyl-lysine

09857636-110201

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 156
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 157
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 157
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 158
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

09857636-110201

<400> 158
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 159
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen
 <221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa = N-epsilon-decanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 159
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 160
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 160

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His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 161
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 161
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 162
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>

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<223> this sequence has an amidated c-terminus

<400> 162

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
			20					25					30		

<210> 163

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa = N-epsilon-decanoyl-lysine

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 163

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
			20					25					30		

<210> 164

<211> 30

<212> PRT

<213> Artificial Sequence

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<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

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<400> 164
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
 20 25 30

<210> 165
 <211> 30
 <212> PRT
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<220>
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<221> VARIANT
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<221> VARIANT
 <222> 28
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
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 <223> this sequence has an amidated c-terminus

<400> 165
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
 20 25 30

<210> 166
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
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<221> VARIANT
 <222> 28
 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 166
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg

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<210> 167
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 28
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 167
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
 20 25 30

<210> 168
 <211> 30
 <212> PRT
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<220>
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<221> VARIANT
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 28
 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 168
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
 20 25 30

<210> 169
 <211> 30
 <212> PRT

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<213> Artificial Sequence

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<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa = N-epsilon-decanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 169

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
 20 25 30

<210> 170

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 170

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
 20 25 30

<210> 171

<211> 30

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<213> Artificial Sequence

<220>

<223> Mutagen

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<221> VARIANT
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 28
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 171
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
 20 25 30

<210> 172
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
 <222> 28
 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 172
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
 20 25 30

<210> 173
 <211> 30
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 <213> Artificial Sequence

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<221> VARIANT

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<222> 28
 <223> Xaa = N-epsilon-decanoyl-lysine

 <221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

 <400> 173
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
 20 25 30

 <210> 174
 <211> 30
 <212> PRT
 <213> Artificial Sequence

 <220>
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

 <221> VARIANT
 <222> 28
 <223> Xaa = N-epsilon-octanoyl-lysine

 <221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

 <400> 174
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Lys Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
 20 25 30

 <210> 175
 <211> 30
 <212> PRT
 <213> Artificial Sequence

 <220>
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 <221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

 <221> VARIANT
 <222> 28
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

 <221> VARIANT
 <222>

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<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 30
<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 180
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Lys Xaa Xaa
20 25 30

<210> 181
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 30
<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 181
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Lys Xaa Xaa
20 25 30

<210> 182
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

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<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 182
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Lys Xaa Xaa
 20 25 30

<210> 183
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 183
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 20 25 30

<210> 184
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> CONFLICT
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<221> VARIANT
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 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 184
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 20 25 30

<210> 185
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 32
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 185
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Gly Xaa
 20 25 30

<210> 186
 <211> 32
 <212> PRT
 <213> Artificial Sequence

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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 32
 <223> Xaa = N-epsilon-decanoyl-lysine

<221> VARIANT

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1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Gly Xaa
 20 25 30

<210> 189
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29, 31
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 32
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 189
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa Xaa
 20 25 30

<210> 190
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
 <222> 2, 29, 31
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 190
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa Xaa
 20 25 30

<210> 191

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<211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29, 31
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 32
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 191
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa Xaa
 20 25 30

<210> 192
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29, 31
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 32
 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 192
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa Xaa
 20 25 30

<210> 193
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>

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<223> Mutagen

<221> VARIANT

<222> 2, 29, 31

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 193

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Xaa	Xaa
			20					25					30		

<210> 194

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> CONFLICT

<222> 2, 29, 31

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa = N-epsilon-decanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 194

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Xaa	Xaa
			20					25					30		

<210> 195

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29, 31

<223> Xaa = Aib (alpha-aminoisobutyric acid)

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<221> VARIANT
 <222> 32
 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 195
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa Xaa
 20 25 30

<210> 196
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
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<221> VARIANT
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<221> VARIANT
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<400> 196
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Lys Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 20 25 30

<210> 197
 <211> 30
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<221> VARIANT
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

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<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 197
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Lys Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 20 25 30

<210> 198
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
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<221> VARIANT
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 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
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 <223> this sequence has an amidated c-terminus

<400> 198
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Lys Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 20 25 30

<210> 199
 <211> 30
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 <213> Artificial Sequence

<220>
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<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
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<400> 199

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His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1           5           10           15
Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
      20           25           30

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<210> 200
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<212> PRT
<213> Artificial Sequence

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<220>
<223> Mutagen

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<221> VARIANT
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<221> VARIANT
<222> 30
<223> Xaa = N-epsilon-tetradecanoyl-lysine

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<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

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<400> 200
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1           5           10           15
Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
      20           25           30

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<210> 201
<211> 30
<212> PRT
<213> Artificial Sequence

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<220>
<223> Mutagen

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<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

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<221> VARIANT
<222> 30
<223> Xaa = N-epsilon-hexadecanoyl-lysine

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<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

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<400> 201
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1           5           10           15
Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
      20           25           30

```

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<210> 202
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-decanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 202
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 20 25 30

<210> 203
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 28
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 203
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
 20 25 30

<210> 204

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<211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 28
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 204
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
 20 25 30

<210> 205
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 28
 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 205
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg

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20

25

30

<210> 206
 <211> 30
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 <213> Artificial Sequence

<220>
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<221> VARIANT
 <222> 26
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<221> VARIANT
 <222> 28
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 206
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Xaa Val Xaa Xaa Arg
 20 25 30

<210> 207
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
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<221> VARIANT
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<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

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<222>

<223> this sequence has an amidated c-terminus

<400> 207

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10				15		
Glu	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Xaa	Xaa	Arg		
			20					25					30		

<210> 208

<211> 30

<212> PRT

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<221> VARIANT

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<221> VARIANT

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<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 28

<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 208

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10				15		
Glu	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Xaa	Xaa	Arg		
			20					25					30		

<210> 209

<211> 30

<212> PRT

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<221> VARIANT

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<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 209

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Xaa	Xaa	Arg		
			20					25					30		

<210> 210

<211> 30

<212> PRT

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<220>

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<221> VARIANT

<222> 28

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 210

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Xaa	Xaa	Arg		
			20					25					30		

<210> 211

<211> 30

<212> PRT

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<220>

<223> Mutagen

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<221> VARIANT
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<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 211
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 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Xaa Val Xaa Xaa Arg
 20 25 30

<210> 212
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<221> VARIANT
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<400> 212
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 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Xaa Val Xaa Xaa Arg
 20 25 30

<210> 213
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<221> VARIANT
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<221> VARIANT
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 <223> this sequence has an amidated c-terminus

<400> 213
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 1 5 10 15
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Xaa Val Xaa Xaa Arg
 20 25 30

<210> 214
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
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 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
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<400> 214
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 1 5 10 15
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Xaa Val Xaa Xaa Arg
 20 25 30

<210> 215
 <211> 30
 <212> PRT
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<220>
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<221> VARIANT
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<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
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<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
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<223> this sequence has an amidated c-terminus

<400> 215
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1 5 10 15
Gln Ala Arg Arg Glu Phe Ile Ala Trp Xaa Val Xaa Xaa Arg
20 25 30

<210> 216
<211> 30
<212> PRT
<213> Artificial Sequence

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<221> VARIANT
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<223> Xaa = N-epsilon-decanoyl-lysine

<221> VARIANT
<222> 29
<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 216
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Arg Arg Glu Phe Ile Ala Trp Xaa Val Xaa Xaa Arg
20 25 30

<210> 217
<211> 30

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<212> PRT
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<220>
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<221> VARIANT
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<221> VARIANT
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 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
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 <223> this sequence has an amidated c-terminus

<400> 217
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 1 5 10 15
 Gln Ala Lys Arg Glu Phe Ile Ala Trp Xaa Val Xaa Xaa Arg
 20 25 30

<210> 218
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
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<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 218
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Lys Arg Glu Phe Ile Ala Trp Xaa Val Xaa Xaa Arg
 20 25 30

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<210> 219
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 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
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 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 219
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 1 5 10 15
 Gln Ala Lys Arg Glu Phe Ile Ala Trp Xaa Val Xaa Xaa Arg
 20 25 30

<210> 220
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
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<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
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 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
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 <223> this sequence has an amidated c-terminus

<400> 220
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1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Xaa
 20 25 30

<210> 221
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
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<221> VARIANT
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<221> VARIANT
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 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
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 <223> this sequence has an amidated c-terminus

<400> 221
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 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Xaa
 20 25 30

<210> 222
 <211> 30
 <212> PRT
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<220>
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<221> VARIANT
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<221> VARIANT
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 <223> this sequence has an amidated c-terminus

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<400> 222
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Xaa
 20 25 30

<210> 223
 <211> 30
 <212> PRT
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<221> VARIANT
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 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
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 <223> this sequence has an amidated c-terminus

<400> 223
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 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Lys Xaa Xaa
 20 25 30

<210> 224
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 <212> PRT
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<221> VARIANT
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<221> VARIANT
 <222> 30
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<221> VARIANT
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 <223> this sequence has an amidated c-terminus

<400> 224
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 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Lys Xaa Xaa
 20 25 30

<210> 225
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 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
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<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
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 <223> this sequence has an amidated c-terminus

<400> 225
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 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Lys Xaa Xaa
 20 25 30

<210> 226
 <211> 30
 <212> PRT
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<220>
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 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

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<222> 30
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 226
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 20 25 30

<210> 227
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
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<221> VARIANT
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 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 227
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 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 20 25 30

<210> 228
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29

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<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 228

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10				15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
			20					25					30		

<210> 229

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-decanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 229

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10				15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
			20					25					30		

<210> 230

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

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<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 230
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Lys Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 20 25 30

<210> 231
 <211> 30
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 <213> Artificial Sequence

<220>
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<221> VARIANT
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
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 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
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 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 231
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Lys Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 20 25 30

<210> 232
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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09857636 110201

<221> VARIANT
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<221> VARIANT
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 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222> 30
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<221> VARIANT
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 <223> this sequence has an amidated c-terminus

<400> 232
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Lys Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 20 25 30

<210> 233
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 233
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 20 25 30

<210> 234
 <211> 30
 <212> PRT
 <213> Artificial Sequence

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<220>
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

 <221> VARIANT
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 <223> Xaa = beta-Ala (beta-alanine)

 <221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

 <221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 234
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 20 25 30

<210> 235
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
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 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 235
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 20 25 30

<210> 236
 <211> 30

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<212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
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<221> VARIANT
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 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-decanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 236
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 20 25 30

<210> 237
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222> 26
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 237
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Xaa Glu Phe Ile Ala Trp Xaa Val Arg Xaa Arg
 20 25 30

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<210> 238
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
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<221> VARIANT
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 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
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 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 238
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Xaa Glu Phe Ile Ala Trp Xaa Val Arg Xaa Arg
 20 25 30

<210> 239
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
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<221> VARIANT
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<221> VARIANT
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 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 239
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly

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1 5 10 15
 Gln Ala Ala Xaa Glu Phe Ile Ala Trp Xaa Val Arg Xaa Arg
 20 25 30

<210> 240
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
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<221> VARIANT
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<221> VARIANT
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 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 240
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Xaa Val Xaa Xaa Arg
 20 25 30

<210> 241
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
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<221> VARIANT
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 <222> 28
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<400> 243
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 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Xaa Val Xaa Xaa Arg
 20 25 30

<210> 244
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 <222> 28
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<221> VARIANT
 <222>
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<400> 244
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 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Xaa Val Xaa Xaa Arg
 20 25 30

<210> 245
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<221> VARIANT

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<222> 30
 <223> Xaa = N-epsilon-octanoyl-lysine

 <221> VARIANT
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 <223> this sequence has an amidated c-terminus

 <400> 245
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 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Xaa Val Lys Xaa Xaa
 20 25 30

 <210> 246
 <211> 30
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 <222> 30
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 <400> 246
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 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Xaa Val Lys Xaa Xaa
 20 25 30

 <210> 247
 <211> 30
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<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT

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<223> this sequence has an amidated c-terminus

<400> 247

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1				5					10				15		
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Lys	Xaa	Xaa		
			20					25					30		

<210> 248

<211> 30

<212> PRT

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<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

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<223> this sequence has an amidated c-terminus

<400> 248

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10				15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Lys	Xaa	Xaa		
			20					25					30		

<210> 249

<211> 30

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<221> VARIANT
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<221> VARIANT
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<400> 249
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 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Xaa Val Lys Xaa Xaa
 20 25 30

<210> 250
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 <212> PRT
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<220>
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<400> 250
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 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Xaa Val Lys Xaa Xaa
 20 25 30

<210> 251
 <211> 30
 <212> PRT
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<220>
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<221> VARIANT
<222> 26
<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
<222> 30
<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
<222>
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<400> 251
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 1             5             10             15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Xaa Val Arg Xaa Xaa
      20             25             30

<210> 252
<211> 30
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<222> 30
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<400> 252
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1             5             10             15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Xaa Val Arg Xaa Xaa
      20             25             30

<210> 253
<211> 30
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<220>
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 <400> 253
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 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Xaa Val Arg Xaa Xaa
 20 25 30

 <210> 254
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 <221> VARIANT
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 <400> 254
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 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Xaa Val Arg Xaa Xaa
 20 25 30

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 <211> 30

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<212> PRT
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<221> VARIANT
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<221> VARIANT
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<221> VARIANT
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<400> 255
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Xaa Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
20 25 30

<210> 256
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<221> VARIANT
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<221> VARIANT
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<223> this sequence has an amidated c-terminus

<400> 256
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1 5 10 15
Gln Xaa Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
20 25 30

<210> 257
<211> 30
<212> PRT
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<220>
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<221> VARIANT
 <222> 20
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<221> VARIANT
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 <223> this sequence has an amidated c-terminus

<400> 257
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 1 5 10 15
 Gln Xaa Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 258
 <211> 30
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<221> VARIANT
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<221> VARIANT
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<400> 258
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 1 5 10 15
 Gln Xaa Ala Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
 20 25 30

<210> 259
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 <212> PRT
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<222>
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<400> 261
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 1 5 10 15
 Gln Xaa Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 20 25 30

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<221> VARIANT
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<400> 262
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 1 5 10 15
 Gln Xaa Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 20 25 30

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<221> VARIANT
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<400> 263
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly

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1 5 10 15
 Gln Xaa Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 20 25 30

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<221> VARIANT
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 1 5 10 15
 Glu Xaa Ala Lys Glu Phe Ile Ala Trp Xaa Val Xaa Xaa Arg
 20 25 30

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 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
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<400> 265
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 1 5 10 15

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Glu Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

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<400> 266
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 1 5 10 15
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 20 25 30

<210> 267
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<221> VARIANT
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 <223> this sequence has an amidated c-terminus

<400> 267
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 1 5 10 15
 Glu Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 268
 <211> 30

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<212> PRT
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<221> VARIANT
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 <223> this sequence has an amidated c-terminus

<400> 268
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 1 5 10 15
 Glu Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
 20 25 30

<210> 269
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<221> VARIANT
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 <223> this sequence has an amidated c-terminus

<400> 269
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 1 5 10 15
 Glu Ala Ala Lys Glu Phe Ile Ala Trp Xaa Val Xaa Xaa Arg
 20 25 30

<210> 270
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<213> Artificial Sequence

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<222> 28

<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT

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<400> 270

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 1 5 10 15
 Glu Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
 20 25 30

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<211> 30

<212> PRT

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<221> VARIANT

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<223> this sequence has an amidated c-terminus

<400> 271

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 1 5 10 15
 Glu Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
 20 25 30

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<221> VARIANT
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<221> VARIANT
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<400> 272
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 1 5 10 15
 Glu Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
 20 25 30

<210> 273
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<221> VARIANT
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<400> 273
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 1 5 10 15
 Glu Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Xaa
 20 25 30

<210> 274
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<222> 30
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<221> VARIANT
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<400> 274
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 1 5 10 15
 Glu Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Xaa
 20 25 30

<210> 275
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 <212> PRT
 <213> Artificial Sequence

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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
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 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 275
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Glu Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Xaa
 20 25 30

<210> 276
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 <213> Artificial Sequence

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<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222>

00857636-110201

<223> this sequence has an amidated c-terminus

<400> 276

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Glu	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
			20				25					30			

<210> 277

<211> 30

<212> PRT

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<222> 2, 29

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<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

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<223> this sequence has an amidated c-terminus

<400> 277

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Glu	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
			20				25					30			

<210> 278

<211> 30

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<222> 30

<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 278

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		

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Glu Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 20 25 30

<210> 279
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 <212> PRT
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 <223> this sequence has an amidated c-terminus

<400> 279
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Xaa Glu Phe Ile Xaa Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 280
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<220>
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<221> VARIANT
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<221> VARIANT
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<400> 280
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Xaa Glu Phe Ile Xaa Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 281
 <211> 30

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<212> PRT
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<221> VARIANT
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 <223> this sequence has an amidated c-terminus

<400> 281
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Xaa Glu Phe Ile Xaa Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 282
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 28
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 282
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Xaa Trp Leu Val Xaa Xaa Arg
 20 25 30

<210> 283
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

0057636-10201

<221> VARIANT
 <222> 2, 24, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 28
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 283
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Xaa Trp Leu Val Xaa Xaa Arg
 20 25 30

<210> 284
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 24, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 28
 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 284
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Xaa Trp Leu Val Xaa Xaa Arg
 20 25 30

<210> 285
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 24, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

09857636-110204

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 285
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Xaa Trp Leu Val Arg Xaa Xaa
 20 25 30

<210> 286
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 286
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Xaa Trp Leu Val Arg Xaa Xaa
 20 25 30

<210> 287
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
 <222> 2, 24, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
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 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT

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<222>
 <223> this sequence has an amidated c-terminus

<400> 287
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Xaa Trp Leu Val Arg Xaa Xaa
 20 25 30

<210> 288
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen
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 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 26
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 288
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 1 5 10 15
 Glu Ala Ala Lys Glu Phe Ile Ala Trp Xaa Val Lys Xaa Xaa
 20 25 30

<210> 289
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen
 <221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 26
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
 <222> 30

00857636.110201

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 289

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Glu	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Lys	Xaa	Xaa		
			20					25					30		

<210> 290

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 290

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Glu	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Lys	Xaa	Xaa		
			20					25					30		

<210> 291

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

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<221> VARIANT
<222> 30
<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 291
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1             5             10             15
Glu Ala Ala Arg Glu Phe Ile Ala Trp Xaa Val Arg Xaa Xaa
      20             25             30

<210> 292
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
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<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
<222> 30
<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 292
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1             5             10             15
Glu Ala Ala Arg Glu Phe Ile Ala Trp Xaa Val Arg Xaa Xaa
      20             25             30

<210> 293
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

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<221> VARIANT
 <222> 26
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

 <221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-hexadecanoyl-lysine

 <221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

 <400> 293
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Glu Ala Ala Arg Glu Phe Ile Ala Trp Xaa Val Arg Xaa Xaa
 20 25 30

 <210> 294
 <211> 30
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Mutagen

 <221> VARIANT
 <222> 2, 18, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

 <221> VARIANT
 <222> 26
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

 <221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-octanoyl-lysine

 <221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

 <400> 294
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 1 5 10 15
 Glu Xaa Ala Arg Glu Phe Ile Ala Trp Xaa Val Arg Xaa Xaa
 20 25 30

 <210> 295
 <211> 30
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Mutagen

 <221> VARIANT

09057636-10201

<222> 2, 18, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

 <221> VARIANT
 <222> 26
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

 <221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

 <221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

 <400> 295
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Glu Xaa Ala Arg Glu Phe Ile Ala Trp Xaa Val Arg Xaa Xaa
 20 25 30

 <210> 296
 <211> 30
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Mutagen

 <221> VARIANT
 <222> 2, 18, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

 <221> VARIANT
 <222> 26
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

 <221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-hexadecanoyl-lysine

 <221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

 <400> 296
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Glu Xaa Ala Arg Glu Phe Ile Ala Trp Xaa Val Arg Xaa Xaa
 20 25 30

 <210> 297
 <211> 30
 <212> PRT
 <213> Artificial Sequence

 <220>

00657636 "1.102001"

<223> Mutagen

<221> VARIANT

<222> 2, 18, 24, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 297

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Glu	Xaa	Ala	Arg	Glu	Phe	Ile	Xaa	Trp	Xaa	Val	Arg	Xaa	Xaa		
		20					25					30			

<210> 298

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 18, 24, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 298

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Glu	Xaa	Ala	Arg	Glu	Phe	Ile	Xaa	Trp	Xaa	Val	Arg	Xaa	Xaa		
		20					25					30			

<210> 299

<211> 30

<212> PRT

09857636.110201

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 18, 24, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 299

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His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
  1             5             10             15
Glu Xaa Ala Arg Glu Phe Ile Xaa Trp Xaa Val Arg Xaa Xaa
      20             25             30

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<210> 300

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 1

<223> Xaa = N alfa-HEPES-His
(N-alpha-(4-(2-hydroxyethyl)-1-piperazine-ethanesu
lfonic
acid)-histidine

<221> VARIANT

<222> 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 300

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Xaa Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
  1             5             10             15
Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
      20             25             30

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<210> 301
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 1
 <223> Xaa = N alfa-HEPES-His
 (N-alpha-(4-(2-hydroxyethyl)-1-piperazine-ethanesu
 lfonic
 acid)-histidine

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 301
 Xaa Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 302
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 1
 <223> Xaa = N alfa-HEPES-His
 (N-alpha-(4-(2-hydroxyethyl)-1-piperazine-ethanesu
 lfonic
 acid)-histidine

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

09857636-110201

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<400> 302
Xaa Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1           5           10           15
Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
      20           25           30

```

```

<210> 303
<211> 30
<212> PRT
<213> Artificial Sequence

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<220>
<223> Mutagen

```

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<221> VARIANT
<222> 1
<223> Xaa = N alfa-HEPA-His
      (N-alpha-(4-(2-hydroxyethyl)-1-piperazineacetyl)-
      histidine

```

```

<221> VARIANT
<222> 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

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<400> 303
Xaa Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1           5           10           15
Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
      20           25           30

```

```

<210> 304
<211> 30
<212> PRT
<213> Artificial Sequence

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```

<220>
<223> Mutagen

```

```

<221> VARIANT
<222> 1
<223> Xaa = N alfa-HEPA-His
      (N-alpha-(4-(2-hydroxyethyl)-1-piperazineacetyl)-
      histidine

```

```

<221> VARIANT
<222> 29
<223> Xaa = beta-Ala (beta-alanine)

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```

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

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09557636-10201

<400> 304
 Xaa Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 305
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 1
 <223> Xaa = N alfa-HEPA-His
 (N-alpha- (4- (2-hydroxyethyl) -1-piperazineacetyl) -
 histidine

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 305
 Xaa Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 306
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 1
 <223> Xaa = N alfa-tetradecanoyl- histadine

<221> VARIANT
 <222> 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

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<400> 306
Xaa Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1             5             10             15
Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
      20             25             30

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<210> 307
<211> 30
<212> PRT
<213> Artificial Sequence

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<220>
<223> Mutagen

<221> VARIANT
<222> 1
<223> Xaa = N alfa-tetradecanoyl- histadine

```

```

<221> VARIANT
<222> 29
<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

```

```

<400> 307
Xaa Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1             5             10             15
Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
      20             25             30

```

```

<210> 308
<211> 30
<212> PRT
<213> Artificial Sequence

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<220>
<223> Mutagen

<221> VARIANT
<222> 1
<223> Xaa = N alfa-tetradecanoyl- histadine

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<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

```

```

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

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```

<400> 308
Xaa Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1             5             10             15
Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg

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20

25

30

<210> 309
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 1
 <223> Xaa = N alfa-tetradecanoyl- histadine

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 309
 Xaa Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 310
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 1
 <223> Xaa = N alfa-tetradecanoyl- histadine

<221> VARIANT
 <222> 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 310
 Xaa Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

09857636-10301

<210> 311
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 1
 <223> Xaa = N alfa-tetradecanoyl- histadine

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 311
 Xaa Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 312
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 1
 <223> Xaa = N alfa-tetradecanoyl- histadine

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 312
 Xaa Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 313
 <211> 30
 <212> PRT
 <213> Artificial Sequence

09857636-110201

<220>
 <223> Mutagen

 <221> VARIANT
 <222> 1
 <223> Xaa = N alfa-tetradecanoyl- histadine

 <221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

 <221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

 <221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

 <400> 313
 Xaa Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

 <210> 314
 <211> 30
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Mutagen

 <221> VARIANT
 <222> 1
 <223> Xaa = N alfa-tetradecanoyl- histadine

 <221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

 <221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

 <400> 314
 Xaa Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

 <210> 315
 <211> 30
 <212> PRT
 <213> Artificial Sequence

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<220>
<223> Mutagen

<221> VARIANT
<222> 1
<223> Xaa = N alfa-tetradecanoyl- histadine

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 315
Xaa Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1             5             10             15
Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
      20             25             30

<210> 316
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 1
<223> Xaa = N alfa-tetradecanoyl- histadine

<221> VARIANT
<222> 2
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 29
<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 316
Xaa Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1             5             10             15
Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
      20             25             30

<210> 317
<211> 30
<212> PRT
<213> Artificial Sequence

<220>

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0957636.1.0201

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa = N-epsilon-octanesulfonyl- lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 317

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
			20				25					30			

<210> 318

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa = N-epsilon-dodecanesulfonyl- lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 318

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
			20				25					30			

<210> 319

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

0057536 = F0201

<221> VARIANT
 <222> 20
 <223> Xaa = N-epsilon-hexadecanesulfonyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 319
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 320
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 28
 <223> Xaa = N-epsilon-octanesulfonyl- lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 320
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
 20 25 30

<210> 321
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 28
 <223> Xaa = N-epsilon-dodecanesulfonyl- lysine

00857565 1102201

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 321
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
 20 25 30

<210> 322
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 28
 <223> Xaa = N-epsilon-hexadecanesulfonyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 322
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
 20 25 30

<210> 323
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-octanesulfonyl- lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 323

00857635-110204

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His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
  1              5              10              15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
      20              25              30

```

<210> 324

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-hexadecanesulfonyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 324

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His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
  1              5              10              15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
      20              25              30

```

<210> 325

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa = 1-(4-decyl-piperazine)- asparagines

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 325

```

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
  1              5              10              15
Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
      20              25              30

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09857636 = 10201

<210> 326
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa = 1-(4-dodecyl-piperazine)- asparagines

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 326
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 327
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa = 1-(4-tetradecyl-piperazine)-asparagines

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 327
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 328
 <211> 30
 <212> PRT
 <213> Artificial Sequence

00857636.110001

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<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 20
<223> Xaa = 1-(4-hexadecyl-piperazine)- asparagines

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 328
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1             5             10             15
Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
      20             25             30

<210> 329
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 28
<223> Xaa = 1-(4-decyl-piperazine)- asparagines

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 329
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1             5             10             15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
      20             25             30

<210> 330
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29

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09857636-110201

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa = 1-(4-dodecyl-piperazine)- asparagines

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 330

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Xaa	Xaa	Arg		
			20					25					30		

<210> 331

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa = 1-(4-tetradecyl-piperazine)-asparagines

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 331

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Xaa	Xaa	Arg		
			20					25					30		

<210> 332

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa = 1-(4-hexadecyl-piperazine)- asparagines

09857636-1601

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<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 332
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1           5           10           15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
          20           25           30

<210> 333
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 30
<223> Xaa = 1-(4-decyl-piperazine)- asparagines

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 333
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1           5           10           15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
          20           25           30

<210> 334
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 30
<223> Xaa = 1-(4-dodecyl-piperazine)- asparagines

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

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<210> 337
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 32
 <223> Xaa = 1-(4-dodecyl-piperazine)- asparagines

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 337
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa Gly Xaa
 20 25 30

<210> 338
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 32
 <223> Xaa = 1-(4-tetradecyl-piperazine)-asparagines

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 338
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa Gly Xaa
 20 25 30

<210> 339
 <211> 32
 <212> PRT
 <213> Artificial Sequence

0957636-11001

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<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 32
<223> Xaa = 1-(4-hexadecyl-piperazine)- asparagines

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 339
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1             5             10             15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa Gly Xaa
      20             25             30

<210> 340
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29, 31
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 32
<223> Xaa = 1-(4-decyl-piperazine)- asparagines

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 340
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1             5             10             15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa Xaa Xaa
      20             25             30

<210> 341
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT

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09857636.10201

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<222> 2, 29, 31
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 32
<223> Xaa = 1-(4-dodecyl-piperazine) - asparagines

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 341
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1             5             10             15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa Xaa Xaa
      20             25             30

<210> 342
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29, 31
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 32
<223> Xaa = 1-(4-tetradecyl-piperazine) -asparagines

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 342
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1             5             10             15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa Xaa Xaa
      20             25             30

<210> 343
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29, 31
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 32

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09857533-110204

<223> Xaa = 1-(4-hexadecyl-piperazine)- asparagines

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 343

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa	Xaa	Xaa
			20				25					30			

<210> 344

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2,29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa = 1-(4-decyl-piperazine)- asparagines

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 344

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Arg	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
			20				25					30			

<210> 345

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa = 1-(4-dodecyl-piperazine)- asparagines

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

0057535 = 10201

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<400> 345
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1           5           10           15
Gln Ala Arg Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
          20           25           30

```

```

<210> 346
<211> 30
<212> PRT
<213> Artificial Sequence

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<220>
<223> Mutagen

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<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

```

```

<221> VARIANT
<222> 20
<223> Xaa = 1-(4-tetradecyl-piperazine)-asparagines

```

```

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

```

```

<400> 346
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1           5           10           15
Gln Ala Arg Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
          20           25           30

```

```

<210> 347
<211> 30
<212> PRT
<213> Artificial Sequence

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<220>
<223> Mutagen

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<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

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<221> VARIANT
<222> 20
<223> Xaa = 1-(4-hexadecyl-piperazine)- asparagines

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```

<221> VARIANT
<222>
<223> Xaa = Aib (alpha-aminoisobutyric acid)

```

```

<400> 347
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1           5           10           15
Gln Ala Arg Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg

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00857636-110201

20

25

30

<210> 348
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 28
 <223> Xaa = 1-(4-decyl-piperazine)- asparagines

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 348
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
 20 25 30

<210> 349
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 28
 <223> Xaa = 1-(4-dodecyl-piperazine)- asparagines

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 349
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
 20 25 30

<210> 350
 <211> 30
 <212> PRT

09857535.110204

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa = 1-(4-tetradecyl-piperazine)-asparagines

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 350

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Xaa	Xaa	Arg		
		20					25						30		

<210> 351

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa = 1-(4-hexadecyl-piperazine)- asparagines

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 351

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Xaa	Xaa	Arg		
		20					25						30		

<210> 352

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

09857636-110201

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 30
 <223> Xaa = 1-(4-decyl-piperazine)- asparagines

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 352
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 20 25 30

<210> 353
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 30
 <223> Xaa = 1-(4-dodecyl-piperazine)- asparagines

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 353
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 20 25 30

<210> 354
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

09857636-116001

<222> 30
 <223> Xaa =
 1-(4-tetradecyl-piperazine)-acetyl)asparagines

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 354
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 20 25 30

<210> 355
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 30
 <223> Xaa = 1-(4-hexadecyl-piperazine)- asparagines

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 355
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 20 25 30

<210> 356
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<220>
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<221> VARIANT
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
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 <223> Xaa = 1-(4-decyl-piperazine)- asparagines

<221> CONFLICT

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<222>
<223> this sequence has an amidated c-terminus

<400> 356
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1             5             10             15
Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Gly Xaa
      20             25             30

<210> 357
<211> 32
<212> PRT
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<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 32
<223> Xaa = 1-(4-dodecyl-piperazine)- asparagines

<221> VARIANT
<222>
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<400> 357
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1             5             10             15
Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Gly Xaa
      20             25             30

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<212> PRT
<213> Artificial Sequence

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<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 32
<223> Xaa = 1-(4-tetradecyl-piperazine)-asparagines

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 358
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly

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1 5 10 15
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Gly Xaa
 20 25 30

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<221> VARIANT
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 <223> Xaa = 1-(4-hexadecyl-piperazine)- asparagines

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 359
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 1 5 10 15
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Gly Xaa
 20 25 30

<210> 360
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<221> VARIANT
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 <223> Xaa = 1-(4-decyl-piperazine)- asparagines

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 360
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa Xaa
 20 25 30

<210> 361

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<220>

<223> Mutagen

<221> VARIANT

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<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa = 1-(4-hexadecyl-piperazine)- asparagines

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 363

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Xaa	Xaa
		20					25					30			

<210> 364

<211> 30

<212> PRT

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<221> VARIANT

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<223> Xaa = 1-dodecylamino-glutamine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 364

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
		20					25					30			

<210> 365

<211> 30

<212> PRT

<213> Artificial Sequence

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<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

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<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 365
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 1             5             10             15
Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
          20             25             30

<210> 366
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
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<221> VARIANT
<222> 28
<223> Xaa = 1-dodecylamino-glutamine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 366
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1             5             10             15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
          20             25             30

<210> 367
<211> 32
<212> PRT
<213> Artificial Sequence

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<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
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<223> Xaa = 1-dodecylamino-glutamine

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<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 367
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa Xaa
 20 25 30

<210> 368
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa =
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<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 368
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 369
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa =
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 ne

<221> VARIANT
 <222>

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<223> this sequence has an amidated c-terminus

<400> 369

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
		20						25					30		

<210> 370

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa =

N-epsilon-(2-(4-tetradecyl-1-piperazine)-acetyl)lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 370

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
		20						25					30		

<210> 371

<211> 30

<212> PRT

<213> Artificial Sequence

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<223> Xaa = Aib (alpha-aminoisobutyric acid)

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<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

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<400> 371
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 1 5 10 15
 Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 372
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 28
 <223> Xaa =
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<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 372
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
 20 25 30

<210> 373
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 28
 <223> Xaa =
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 ne

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 373

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His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
 20 25 30

<210> 374
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
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 <223> Xaa =
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<221> VARIANT
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 <223> this sequence has an amidated c-terminus

<400> 374
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 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
 20 25 30

<210> 375
 <211> 30
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 <213> Artificial Sequence

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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 28
 <223> Xaa =
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<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 375
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly

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1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
 20 25 30

<210> 376

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

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<221> VARIANT

<222> 2, 29

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<221> VARIANT

<222> 30

<223> Xaa =

N-epsilon-(2-(4-decyl-1-piperazine)-acetyl)-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 376

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 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 20 25 30

<210> 377

<211> 30

<212> PRT

<213> Artificial Sequence

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<221> VARIANT

<222> 30

<223> Xaa =

N-epsilon-(2-(4-dodecyl-1-piperazine)-acetyl)-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 377

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa

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25

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<210> 378
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 <213> Artificial Sequence

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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 30
 <223> Xaa =
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 sine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 378
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 20 25 30

<210> 379
 <211> 32
 <212> PRT
 <213> Artificial Sequence

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<221> VARIANT
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 <223> Xaa =
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<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 379
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Gly Xaa
 20 25 30

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<210> 380
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 ne

<221> VARIANT
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 <223> this sequence has an amidated c-terminus

<400> 380
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 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Gly Xaa
 20 25 30

<210> 381
 <211> 32
 <212> PRT
 <213> Artificial Sequence

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<221> VARIANT
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 <223> Xaa =
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 sine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 381
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Gly Xaa
 20 25 30

<210> 382

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<211> 32
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 <213> Artificial Sequence

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 sine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 382
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 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Gly Xaa
 20 25 30

<210> 383
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 <212> PRT
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<221> VARIANT
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 <223> Xaa =
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<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 383
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 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa Xaa
 20 25 30

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<213> Artificial Sequence

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<221> VARIANT

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<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

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N-epsilon-(2-(4-dodecyl-1-piperazine)-acetyl)-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 384

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Xaa	Xaa
			20					25					30		

<210> 385

<211> 32

<212> PRT

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<221> VARIANT

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<221> VARIANT

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<223> Xaa =

N-epsilon-(2-(4-tetradecyl-1-piperazine)-acetyl)lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 385

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Xaa	Xaa
			20					25					30		

<210> 386

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<220>
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 <221> VARIANT
 <222> 32
 <223> Xaa =
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 sine

 <221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

 <400> 386
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 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa Xaa
 20 25 30

 <210> 387
 <211> 30
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 <213> Artificial Sequence

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 <221> VARIANT
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 <400> 387
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

 <210> 388
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<223> Mutagen

<221> VARIANT
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<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 20
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      ne

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 388
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1              5              10              15
Gln Ala Arg Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
      20              25              30

<210> 389
<211> 30
<212> PRT
<213> Artificial Sequence

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<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 20
<223> Xaa =
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      sine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 389
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1              5              10              15
Gln Ala Arg Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
      20              25              30

<210> 390
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<212> PRT
<213> Artificial Sequence

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<223> Mutagen

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<221> VARIANT
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<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 20
<223> Xaa =
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      sine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 390
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1             5             10             15
Gln Ala Arg Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
      20             25             30

<210> 391
<211> 30
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<213> Artificial Sequence

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<221> VARIANT
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<223> Xaa = Aib (alpha-aminoisobutyric acid)

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<223> Xaa =
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<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 391
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1             5             10             15
Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
      20             25             30

<210> 392
<211> 30
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<221> VARIANT

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<222> 2, 29
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<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 392
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 1 5 10 15
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
 20 25 30

<210> 393
 <211> 30
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 <213> Artificial Sequence

<220>
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<221> VARIANT
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<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 393
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
 20 25 30

<210> 394
 <211> 30
 <212> PRT
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<220>
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<221> VARIANT
 <222> 2, 29

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<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa =
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sine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 394

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Xaa	Xaa	Arg		
		20						25					30		

<210> 395

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa =
N-epsilon-(2-(4-decyl-1-piperazine)-acetyl)-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 395

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
		20						25					30		

<210> 396

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

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<221> VARIANT
<222> 30
<223> Xaa =
      N-epsilon-(2-(4-dodecyl-1-piperazine)-acetyl)-lysi
      ne

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 396
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1           5           10           15
Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
      20           25           30

<210> 397
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 30
<223> Xaa =
      N-epsilon-(2-(4-tetradecyl-1-piperazine)-acetyl)ly
      sine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 397
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1           5           10           15
Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
      20           25           30

<210> 398
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

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<222> 30
 <223> Xaa =
 N-epsilon-(2-(4-hexadecyl-1-piperazine)-acetyl)-ly
 sine

 <221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

 <400> 398
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 20 25 30

 <210> 399
 <211> 32
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Mutagen

 <221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

 <221> VARIANT
 <222> 32
 <223> Xaa =
 N-epsilon-(2-(4-decyl-1-piperazine)-acetyl)-lysine

 <221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

 <400> 399
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Gly Xaa
 20 25 30

 <210> 400
 <211> 32
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Mutagen

 <221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

 <221> VARIANT
 <222> 32
 <223> Xaa =

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N-epsilon-(2-(4-dodecyl-1-piperazine)-acetyl)-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 400

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Gly	Xaa
		20						25					30		

<210> 401

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa =

N-epsilon-(2-(4-tetradecyl-1-piperazine)-acetyl)lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 401

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Gly	Xaa
		20						25					30		

<210> 402

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa =

N-epsilon-(2-(4-hexadecyl-1-piperazine)-acetyl)-ly

09876543210

sine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 402

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly

1

5

10

15

Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Gly Xaa

20

25

30

<210> 403

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29, 31

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa =

N-epsilon-(2-(4-decyl-1-piperazine)-acetyl)-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 403

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly

1

5

10

15

Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa Xaa

20

25

30

<210> 404

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29, 31

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa =

N-epsilon-(2-(4-dodecyl-1-piperazine)-acetyl)-lysine

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<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 404
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa Xaa
 20 25 30

<210> 405
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29, 31
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 32
 <223> Xaa =
 N-epsilon-(2-(4-tetradecyl-1-piperazine)-acetyl)-ly
 sine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 405
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa Xaa
 20 25 30

<210> 406
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29, 31
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 32
 <223> Xaa =
 N-epsilon-(2-(4-hexadecyl-1-piperazine)-acetyl)-ly
 sine

<221> VARIANT

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<222>
 <223> this sequence has an amidated c-terminus

<400> 406
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa Xaa
 20 25 30

<210> 407
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen
 <221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-decanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an hydroxydated c-terminus

<400> 407
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 20 25 30

<210> 408
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen
 <221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-decanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an hydroxydated c-terminus

<400> 408
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly

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1 5 10 15
 Gln Ala Lys Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 20 25 30

<210> 409

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 31

<223> Xaa = Ava (5-aminovaleric acid)

<221> VARIANT

<222> 32

<223> Xaa = Ado (12-aminododecanoic acid)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 409

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa Xaa
 20 25 30

<210> 410

<211> 31

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222> 31

<223> Xaa = N-epsilon-dodecanoyl-lysine

<221> VARIANT

<222>

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<221> VARIANT
<222> 3
<223> Xaa = Glu, N-Me-Glu, N-Me- Asp, or Asp
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<221> VARIANT
<222> 4
<223> Xaa = Gly, Acc, beta-Ala, or Aib

<221> VARIANT
<222> 5
<223> Xaa = Thr, or Ser

<221> VARIANT
<222> 6
<223> Xaa = Phe, Acc, Aic, Aib, 3-Pal, 4- Pal, beta-Nal, Cha, Trp, or X1-Phe

<221> VARIANT
<222> 7
<223> Xaa = Thr, or Ser

<221> VARIANT
<222> 8
<223> Xaa = Ser, or Aib

<221> VARIANT
<222> 9
<223> Xaa = Asp, or Glu

<221> VARIANT
<222> 10
<223> Xaa = Val, Acc, Aib, Leu, Ile, Tle, Nle, Abu, Ala, or Cha

<221> VARIANT
<222> 11
<223> Xaa = Ser, or Thr

<221> VARIANT
<222> 12
<223> Xaa = Ser, or Thr

<221> VARIANT
<222> 13
<223> Xaa = Tyr, Cha, Phe, 3-Pal, 4-Pal, Acc, beta-Nal, or X1-Phe

<221> VARIANT
<222> 14
<223> Xaa = Leu, Acc, Aib, Nle, Ile, Cha, Tle, Val, Phe, or X1-Phe

<221> VARIANT
<222> 15
<223> Xaa = Glu, or Asp

<221> VARIANT
<222> 16
<223> Xaa = Gly, Acc, beta-Ala, Glu, or Aib

<221> VARIANT
<222> 17
<223> Xaa = Gln, Asp, Asn, or Glu

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<221> VARIANT
 <222> 18
 <223> Xaa = Ala, Aib, Val, Abu, Tle, or Acc

<221> VARIANT
 <222> 19
 <223> Xaa = Ala, Aib, Val, Abu, Tle, Acc, Lys, Arg, hArg, Orn, HN-CH((CH₂)_n-N(R10-R11))-C(O), OR NH-CH((CH₂)_e-X3)-C(O)

<221> VARIANT
 <222> 20
 <223> Xaa = Lys, Arg, hArg, Orn, HN-CH((CH₂)_n-N(R10-R11))-C(O), OR NH-CH((CH₂)_e-X3)-C(O)

<221> VARIANT
 <222> 21
 <223> Xaa = Glu Asp, Leu, Aib, or Lys

<221> VARIANT
 <222> 22
 <223> Xaa = Phe, Pal, beta-Nal, X1-Phe, Aic, Acc, Aib, Cha, or Trp

<221> VARIANT
 <222> 23
 <223> Xaa = Ile, Acc, Aib, Leu, Nle, Cha, Tle, Val, Abu, Ala, or Phe

<221> VARIANT
 <222> 24
 <223> Xaa = Ala, Aib, or Acc

<221> VARIANT
 <222> 25
 <223> Xaa = Trp, beta-Nal, 3-Pal, 4-Pal, Phe, Acc, Aib, or Cha

<221> VARIANT
 <222> 26
 <223> Xaa = Leu, Acc, Aib, Nle, Ile, Cha, Tle, Phe, X1-Phe, or Ala

<221> VARIANT
 <222> 27
 <223> Xaa = Val, Acc, Aib, Leu, Ile, Tle, Nle, Cha, Ala, Phe, Abu, Lys, or X1-Phe

<221> VARIANT
 <222> 28
 <223> Xaa = Lys, Arg, hArg, Orn, HN-CH((CH₂)_n-N(R10-R11))-C(O), or NH-CH((CH₂)_e-X3)-C(O)

<221> VARIANT
 <222> 29
 <223> Xaa = Gly, beta-Ala, D-Ala, Gaba, Ava, NH-(CH₂)_m-C(O), Aib, Acc or D-amino acid

<221> VARIANT
 <222> 30
 <223> Xaa = L-or D-Arg, D-or L-Lys, D-or L-hArg, D-or L-Orn, HN-CH((CH₂)_n-N(R10-R11))-C(O), NH-CH((CH₂)_e-X3)-C(O) or deleted

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<221> VARIANT

<222> 31

<223> Xaa = Gly, beta-Ala, Gaba, Ava, Aib, Acc, Ado, Arg, Asp, Aun, Aec, NH-(CH₂)_m-C(O), HN-CH((CH₂)_n-N(R10-R11))-C(O), a D-amino acid, or deleted

<221> VARIANT

<222> 32

<223> Xaa = D-or L-Lys, D-or L-Arg, D-or L-hArg, D-or L-Orn, HN-CH((CH₂)_n-N(R10-R11))-C(O), NH-CH((CH₂)_e-X3)-C(O)Ava, Ado, Aec, or deleted

<221> VARIANT

<222> 33

<223> Xaa = D-or L-Lys, D-or L-Arg, HN-CH((CH₂)_n-N(R10-R11))-C(O), Ava, Ado, or Aec

<400> 412

Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa
1				5					10					15			
Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa
			20					25						30			
Xaa																	

<210> 413

<211> 31

<212> PRT

<213> Homo sapiens

<400> 413

His	Ala	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10				15		
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Gly	Arg	Gly	
			20					25					30		

<210> 414

<211> 32

<212> PRT

<213> Homo sapiens

<400> 414

His	Ala	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10				15		
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Gly	Arg	Gly	Arg
			20					25					30		

<210> 415

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 13

<223> Xaa = 125I radiolabeled Tyr

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<400> 415

His	Ala	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Xaa	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Gly	Arg		
			20					25					30		

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